Grade: 5
Julia Vincent
Title: Pelican Food

Student Learning Objective(s):

1. The students will identify the levels of organisms in a food chain (producers, consumers, and decomposers) and explain the role of each.
2. The students will construct a food chain for the Brown Pelican of Louisiana.
3. The students will present their new found information to the rest of the class.

LA GLE's

Grade: 5 #19: Communicate ideas in a variety of ways (e.g., symbols, illustrations, graphs, charts, spreadsheets, concept maps, oral and written reports, equations).
Grade: 5 #23: Construct food chains that could be found in ponds, marshes, oceans, forests, or meadows.

Materials needed:

- Poster Boards
- Internet Access
- Colored Markers
- Roll of Yarn
- Construction Paper
- Online Diagrams of Food Chains and Food Webs

Detailed Procedure. *Describe what the students will do in each stage. Include guiding questions you might ask to help students.*

1. Engage:

Science Process Skills

☐ Communication

1. The teacher will review with students what they already know about plants and animals in local ecosystems (biotic vs. nonbiotic). During this discussion the teacher will pull up an online diagram of a food chain as a visual aid for students.
2. The teacher will ask inquiry questions about the ecosystem of the Brown Pelican to engage student participation and access prior knowledge.
3. Inquiry Questions: Where do Brow Pelicans live? What specific Ecosystems do they live in? What do they eat? Does anything eat them? What do you remember about ecosystems?
4. During the discussion, students will be accessing their prior knowledge from the previous science lessons. The teacher will ask students to record their thoughts and ideas in their learning logs.

2. Explore:

Science Process Skills

☐ Classification ☐ Communication

1. The teacher will show students an online diagram of a food chain and discuss how the different parts work together. The teacher will introduce the terms: *producer*, *decomposer*, *consumer*, *herbivores*, *carnivores*, *omnivores*, *predator*, *prey* and

energy source. The teacher will go over each term and ask inquiry questions to elicit students understanding. This will aid students in the next activity.

2. To help students understand how plant and animals in an ecosystem are interconnected students will construct their very own food chain for the Brown Pelican. The teacher will instruct students to focus on and incorporate the following terms in their food chain: *producer*, *decomposer*, *consumer*, *herbivores*, *carnivores*, *omnivores*, *predator*, *prey* and *energy source*.
3. The teacher will split the class into groups and handout art materials. The students will be given the opportunity to use library resources (books about the Brown Pelican and the Wetlands Ecosystems) and the internet as resources.
4. Students will be given creative freedom in the way they construct their food chain, and in how they share their new found knowledge with the rest of the class. This will encourage students to work together and to think creatively about how to express what they have learned.

3. Explain:

During this part of the lesson, the teacher will ask students questions to help them review what they have learned. This is also an opportunity for the teacher to assess students understanding. The teacher will ask the following questions about food chains:

1. What is a food chain?
2. What are the different parts in a food chain?
3. How are the different parts in a food chain connected?
4. What did you learn about the Brown Pelican's ecosystem?
5. Are they a predator or prey?

4. Expand:

Science Process Skills

☐ Communication ☐ Classification ☐ Predict ☐ Inference

1. After learning about the food chain, the students will play a food web game. To begin, the teacher will designate one student to be the Sun (energy source) and the rest of the students should be given roles as plants or animals in the specified ecosystem.
2. The students will create signs to hang around their neck with construction paper, markers and yarn. The teacher will instruct the Sun to stand in the middle of the room and remind students that he/she is the main energy source.
3. The teacher will instruct the rest of the students to wear their signs around their necks which will identify which organism they represent. The teacher will instruct students to and stand in a large circle around the sun. The teacher will give the ball or yarn to the Sun and have him/her hold onto the end and toss the ball to a producer. The producer will first explain how he/she obtains energy from the sun, and then toss the ball to another student. The producer should then toss the ball of yarn to a primary consumer. The primary consumer should explain how he/she receives energy from the producer and the Sun. The primary consumer will toss the ball to a secondary consumer and so on until the yarn is tossed to an organism that doesn't have a predator.
4. The teacher will remind students at each move to identify predator and prey relationships. This game will help students understand how organisms in an

ecosystem are interconnected and how energy flows through the ecosystem.

5. Evaluate:

1. During the Engage part of the lesson, the teacher will activate students' prior knowledge by asking inquiry questions. This will encourage students to be active thinkers and participants of the lesson.
2. In the Explore part of the lesson, the teacher will assess students' ability to work together in groups and follow directions in creating a food chain. Students will be required to express their ideas in creative ways to the rest of the class.
3. During the Explain part of the lesson, the teacher will focus on asking open-ended questions about food chains in order to assess students understanding. Students will share their food chains with the rest of the class and demonstrate their understanding of the parts of a food chain.
4. During the Expand part of the lesson, students will participate in a food web game that will get them moving and thinking about what they have learned. Students will identify different the levels of organisms in a food chain (producers, consumers, and decomposers) and explain the role of each. The teacher will help guide students with questions and evaluate students on their level of understanding about food chains and food webs.

Brain Compatible Learning Strategies Used in This Lesson:

☐ Brainstorming/Discussion ☐ Drawing and Artwork ☐ Games ☐ Graphic Organizers
☐ Music, Rhythm, Rhyme, and Rap
☐ Technology (student use) ☐ Visuals ☐ Writing/Journals

Lesson Source:

Louisiana Comprehensive Curriculum. (2008). Science Unit 5: Ecosystems. Retrieved April 24, 2009, from Louisiana Department of Education website: http://www.doe.state.la.us/lde/portals/curriculum.html

Resource Books:

Arnosky, Jim. (2000). Wild and Swampy. New York: HarperCollins Publishers.
Gibbons, Gail. (1998). Marshes and Swamps**.** New York: Holiday House.
Gray, Shirley W. (2001**).** Wetlands. Minnesota: Compass Point Books.
Lepthien, Emilie U. (1993). Wetlands**.** Chicago, Ill.: Children's Press.
Stone, Lynn M. (1989). Wetlands. Florida: Rourke Enterprises.
Stone, Lynn M. (1990). The Pelican. Minnesota: Dillon Press.
Johansson, Philip. (2008). Marshes and Swamps: A Wetland Web of Life. New Jersey: Enslow Elementary.
Staub, Frank. (1995). America's Wetlands. Minnesota: Carolrhoda Books.
Matthews, Downs. (1994). Wetlands. New York: Simon & Shuster Books for Young Readers.
Rotter, Charles. (1994). Wetlands. Minnesota: Creative Education.